

# Notice of Allowability

Application No.

09/483,723

Examiner

James A. Reagan

Applicant(s)

LIU ET AL.

Art Unit

3621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Appeal Brief filed on 19 September 2005.
2. ☒ The allowed claim(s) is/are 11-14, 17-23, 34-37, 40-46, 57-60, and 63-105.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### **Status of Claims**

1. This action is in response to the Appeal Brief filed on 19 September 2005.
2. Claims 15, 16, 38, 39, 61, and 62 have been cancelled by Examiner's amendment below.
3. Claims 11-14, 17-23, 34-37, 40-46, 57-60, and 63-105 are pending and have been examined.

### **Allowable Subject Matter**

4. Claims 11-14, 17-23, 34-37, 40-46, 57-60, and 63-105 are allowed. See Reasons for Allowance under separate heading.

## **EXAMINER'S AMENDMENT**

5. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
6. Authorization for this examiner's amendment was given in a telephone interview with Christian Nichols on 15 November 2005.
7. The application has been amended as follows:
  - Cancel claims 15, 16, 38, 39, 61, and 62.

- Amend claims **11, 17, 34, 40, 57, and 63** by adding the text as -- *indicated*-- or indicated:

**Claim 11.** In a system comprising an application, a framework, and an implementation class which provides an implementation for a particular service, a method performed by the framework, comprising:

receiving a request from an application for a customized implementation of a particular service;

instantiating an implementation class which provides an implementation for the particular service to give rise to an implementation instance;

determining a set of zero or more restrictions to be imposed on said customized implementation;

instantiating a wrapper class to give rise to a wrapper instance, said wrapper instance comprising enforcement logic for enforcing said restrictions;

encapsulating said implementation instance and said restrictions within said wrapper instance; and

providing said wrapper instance to the application as said customized implementation;

wherein said wrapper instance comprises one or more invocable methods,

wherein said implementation instance comprises one or more invocable methods, and

wherein encapsulating comprises:

mapping the one or more invocable methods of said wrapper instance to the one or more invocable methods of said implementation instance;

**-- wherein determining the set of zero or more restrictions comprises:**

**accessing information specifying one or more limitations; and**

**processing said limitations to derive said restrictions; and**

**wherein the particular service is an encryption/decryption service, and wherein said information comprises a set of one or more default encryption limitations. --**

Art Unit: 3621

**Claim 17.** The method of claim [[16]] 11, wherein said default encryption limitations are derived by merging multiple jurisdiction policies and extracting therefrom the most restrictive encryption limitations.

**Claim 34.** In a system comprising an application and an implementation class which provides an implementation for a particular service, a framework comprising:

a mechanism for receiving a request from an application for a customized implementation of a particular service;

a mechanism for instantiating an implementation class which provides an implementation for the particular service to give rise to an implementation instance;

a mechanism for determining a set of zero or more restrictions to be imposed on said customized implementation;

a mechanism for instantiating a wrapper class to give rise to a wrapper instance, said wrapper instance comprising enforcement logic for enforcing said restrictions;

a mechanism for encapsulating said implementation instance and said restrictions within said wrapper instance; and

a mechanism for providing said wrapper instance to the application as said customized implementation;

wherein said wrapper instance comprises one or more invocable methods,

wherein said implementation instance comprises one or more invocable methods, and

wherein the mechanism for encapsulating comprises:

a mechanism for mapping the one or more invocable methods of said wrapper

instance to the one or more invocable methods of said implementation instance;

**-- wherein the mechanism for determining the set of zero or more restrictions comprises:**

**a mechanism for accessing information specifying one or more limitations; and**

**a mechanism for processing said limitations to derive said restrictions; and**

*wherein the particular service is an encryption/decryption service, and wherein said information comprises a set of one or more default encryption limitations. --*

**Claim 40.** The framework of claim [[39]] 34, wherein said default encryption limitations are derived by merging multiple jurisdiction policies and extracting therefrom the most restrictive encryption limitations.

**Claim 57.** In a system comprising an application and an implementation class which provides an implementation for a particular service, a computer readable medium having stored thereon instructions which, when executed by one or more processors, cause the one or more processors to implement a framework which dynamically constructs a customized implementation, said computer readable medium comprising:

instructions for causing one or more processors to receive a request from an application for a customized implementation of a particular service;

instructions for causing one or more processors to instantiate an implementation class which provides an implementation for the particular service to give rise to an implementation instance;

instructions for causing one or more processors to determine a set of zero or more restrictions to be imposed on said customized implementation;

instructions for causing one or more processors to instantiate a wrapper class to give rise to a wrapper instance, said wrapper instance comprising enforcement logic for enforcing said restrictions;

instructions for causing one or more processors to encapsulate said implementation instance and said restrictions within said wrapper instance; and

instructions for causing one or more processors to provide said wrapper instance to the application as said customized implementation;

wherein said wrapper instance comprises one or more invocable methods,

wherein said implementation instance comprises one or more invocable methods, and

Art Unit: 3621

wherein the instructions for causing one or more processors to encapsulate comprises:

instructions for causing one or more processors to map the one or more invocable methods of said wrapper instance to the one or more invocable methods of said implementation instance;

***-- wherein the instructions for causing one or more processors to determine the set of zero or more restrictions comprises:***

***instructions for causing one or more processors to access information specifying one or more limitations; and***

***instructions for causing one or more processors to process said limitations to derive said restrictions; and***

***wherein the particular service is an encryption/decryption service, and wherein said information comprises a set of one or more default encryption limitations. --***

**Claim 63.** The computer readable medium of claim [\[\[62\]\] 57](#), wherein said default encryption limitations are derived by merging multiple jurisdiction policies and extracting therefrom the most restrictive encryption limitations.

#### **Reasons For Allowance**

8. The following is an Examiner's statement of reasons for allowance:

None of the art of record, taken individually or combination, disclose at least the method step/system component of:

- *wherein determining the set of zero or more restrictions comprises accessing information specifying one or more limitations; and*
- *processing said limitations to derive said restrictions; and*

- *wherein the particular service is an encryption/decryption service, and wherein said information comprises a set of one or more default encryption limitations.*

More specifically, the prior art of record fails to disclose a wrapper instance that allows an existing object-oriented framework to interface with legacy encryption systems.

Independent claims 11, 34, and 57 are distinguished over the closest prior art of Taylor in at least chapter 1 of his textbook, who introduces fundamental object-oriented software technology mechanisms. In chapters 3 and 4 Taylor begins an in-depth teaching of the essentials in OOD/OOA technology, and further into the book, describes in detail techniques and procedures for programming in an object-oriented environment. In addition, Pressman discloses object-oriented software engineering (pages 1-22 and 549-576), which support the basic OOD/OOA concepts that are considered common knowledge to any college-level programmer in the computer programming arts. As recited in independent claims 11, 34, and 57, it is clear that the Applicant's invention is distinguished over the Taylor and Pressman disclosures in at least the method steps and system components of:

- *wherein determining the set of zero or more restrictions comprises accessing information specifying one or more limitations; and*
- *processing said limitations to derive said restrictions; and*
- *wherein the particular service is an encryption/decryption service, and wherein said information comprises a set of one or more default encryption limitations.*

Although Taylor and Pressman individually disclose various functions of object-oriented programming each, neither alone nor in combination fully disclose a legacy wrapper for interfacing specifically with encryption systems.

### Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- BURRIDGE et al. (EP 780756 A2) discloses a method and apparatus for docking, launching and running applications in a foreign environment. June 25, 1997.



Art Unit: 3621

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **James A. Reagan** whose telephone number is **571.272.6710**. The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **James Trammell** can be reached at **571.272.6712**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866.217.9197 (toll-free).

Any response to this action should be mailed to:

**Commissioner of Patents and Trademarks**

**Washington, D.C. 20231**

or faxed to:

**571-273-8300** [Official communications, After Final communications labeled "Box AF"]

**571-273-8300** [Informal/Draft communications, labeled "PROPOSED" or "DRAFT"]

Hand delivered responses should be brought to the **United States Patent and Trademark Office Customer Service Window**:

Randolph Building

401 Dulany Street

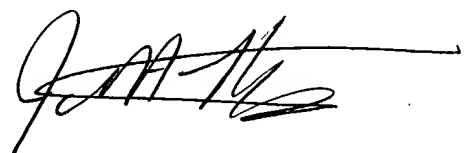
Alexandria, VA 22314.

JAMES A. REAGAN

Primary Examiner

Art Unit 3621

22 November 2005

A handwritten signature in black ink, appearing to read 'J. A. Reagan', with a long horizontal line extending to the right.